

Appln No. 09/933,035

Amdt date May 9, 2005

Reply to Office action of February 8, 2005

Amendments to the Drawings:

The attached sheet of drawings includes changes to Fig. 1. This sheet, which includes Fig. 1, replaces the original sheet including Fig. 1.

Attachment: Replacement Sheet

Annotated Sheet Showing Changes

Appln No. 09/933,035

Amdt date May 9, 2005

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REMARKS/ARGUMENTS

The above identified patent application has been amended and reconsideration and allowance are hereby requested. Claims 1-36 are now in the application. Claims 1, 5, 7-10, 15, 23, and 31 have been amended to place them in better form for U.S. practice. Applicant appreciates the indication that Claims 4, 18, 26 and 33-35 would be allowable if rewritten in independent form. However, as Applicant believes that all claims here are allowable, these claims have not been rewritten in independent form at this time. No claims have been added or cancelled by this amendment.

I. Objections to the Drawings

The Examiner has objected to the drawings for failing to comply with 37 CFR 1.84(p)(5). In particular, the Examiner states that the drawings do not include the incoming signal 30(a) mentioned in the description of Figure 1 on page 5, line 15. Applicant has corrected this inadvertent omission by adding a reference for the incoming signal 30(a) to the signal path between the port 30 and the tone invalidation logic 50 in Figure 1 as shown in the accompanying sheet of drawings. In addition, we changed the reference numeral from 80 to 70 in Fig. 1. No new matter has been added.

II. Rejection of Claims 1, 5, 15, 23 and 31 Under 34 U.S.C. §112, Second Paragraph

The Examiner has rejected Claims 1, 5, 15, 23, and 31, claims which have now been amended to place them in better form

Appln No. 09/933,035

Amdt date May 9, 2005

Reply to Office action of February 8, 2005

for U.S. practice and not for reasons of patentability, under 35 U.S.C. §112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which Applicant regard as the invention.

In particular, the Examiner states that, as to Claim 1, the limitation "said tone" lacks the proper antecedent basis. Applicant has amended Claim 1 to call for "validating at least one of said tones", and submits that Claim 1 now has proper antecedent basis for the phrase "at least one of said tones".

Furthermore the Examiner states that, as to Claim 5, the limitation "said incoming signal" lacks the proper antecedent basis. Applicant has amended Claim 5 to call for "adding an additional tone to said communication signal at a discrete frequency", and submits that Claim 5 now has proper antecedent basis for the phrase "said communication signal".

The Examiner also states that, as to Claim 15, the limitation "said pre-detected tone" lacks the proper antecedent basis. Applicant has amended Claim 15 to call for "one or more characteristics of a pre-detected tone among the tones", and submits that Claim 15 now has proper antecedent basis for the phrase "a pre-detected tone among the tones".

The Examiner also states that, as to Claim 23, the limitation "pre-detected tone" lacks the proper antecedent basis. Applicant has amended Claim 23 to call for "one or more characteristics of a pre-detected tone among the tones", and submits that Claim 23 now has proper antecedent basis for the phrase "a pre-detected tone among the tones".

Appln No. 09/933,035

Amdt date May 9, 2005

Reply to Office action of February 8, 2005

The Examiner also states that, as to Claim 31, the limitation "said pre-detected tone" lacks the proper antecedent basis. Applicant has amended Claim 31 to call for "one or more characteristics of a pre-detected tone", and submits that Claim 31 now has proper antecedent basis for the phrase "a pre-detected tone among the tones".

Accordingly, Applicant submits that Claims 1, 5, 15, 23, and 31 particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Therefore, Applicant requests that the rejection of Claims 1, 5, 15, 23, and 31 under 35 U.S.C. §112, Second Paragraph, be withdrawn.

III. Rejection of Claims 1-3, 6-17, 19-25, 27-32 and 36 Under 35 U.S.C. §102(e)

The Examiner has rejected Claims 1-3, 6-17, 19-25, 27-32 and 36 under 35 U.S.C. §102(e) as allegedly being anticipated by Arnaud et al. (US patent 6,650,662) ("Arnaud"). In regards to Claim 1, the Examiner contends "Arnaud discloses...processing said communication signal to invalidate said tones in response to said tone pre-detection, and cites Column 5, lines 36-41 and Figure 2, filter 201, of Arnaud. However, Applicant submits that Arnaud does not disclose "processing said communication signal to invalidate said tones in response to said tone pre-detection" as called for in Claim 1. As such, Applicant submits that Claim 1 is not anticipated by Arnaud under 35 U.S.C. §102(e).

For example, the present invention provides for "processing said communication signal to invalidate said tones in response

Appln No. 09/933,035

Amdt date May 9, 2005

Reply to Office action of February 8, 2005

to said tone pre-detection" (emphasis added). Arnaud, on the other hand provides in column 5 at lines 36-41 that, "Before determining whether the candidate DTMF signal is a true DTMF signal or voice traffic, the candidate DTMF signal at the output of the DTMF detector is filtered (201) to remove the value of the second group frequency. The filtered candidate DTMF signal is then compressed (201, 204), assembled in packets (205) and sent to the destination node (105)" (emphasis added). Accordingly, the filter 201 of Arnaud operates before the determination is made as to whether a signal is a DTMF signal. Therefore, the filter 201 cannot be said to operate in response to tone pre-detection as called for in Claim 1.

Arnaud continues at lines 42-52, "After the DTMF Detector (203) has determined that the candidate DTMF signal is a true DTMF signal and not voice traffic, all the features essential for reconstructing the DTMF signal at the destination, are forwarded to a Transmit Interface (205)." Thus, Arnaud does not distinguish a DTMF signal from ordinary voice data to invalidate DTMF tones, rather Arnaud does this so that features for reconstructing a DTMF signal may be sent to the transmit interface. Therefore, because Arnaud does not disclose "processing said communication signal to invalidate said tones in response to said tone pre-detection" as called for in Claim 1, Applicant submits that Claim 1 is not anticipated by Arnaud under 35 U.S.C. §102(e).

Furthermore, Claim 1 also calls for, "pre-detecting said tones", and "processing said communication signal to invalidate said tones in response to said tone pre-detection." Arnaud

Appln No. 09/933,035

Amdt date May 9, 2005

Reply to Office action of February 8, 2005

discloses in column 5, lines 28-30, "a filter (201) for removing a frequency among the pre-detected DTMF frequencies so that any double DTMF detection can be avoided at end user equipment". In contrast to invalidating the "said tones", which said tones were previously pre-detected as set forth in Claim 1, Arnaud discloses that only a portion of the pre-detected DTMF frequencies are removed. While this may be done to avoid double DTMF detection, it does not address the jitter and delay problems inherent in present DTMF signal transmission systems. Thus, because Arnaud does not disclose, "processing said communication signal to invalidate said tones" as called for in Claim 1, Applicant again submits that Claim 1 is not anticipated by Arnaud under 35 U.S.C. §102(e). Claims 2, 3 and 5-10 are dependent on Claim 1. As such, Claims 2, 3 and 5-10 are believed allowable based upon Claim 1 and for the additional limitations contained therein, which together further patentably distinguish them over the cited references. Therefore, Applicant requests that the rejection of Claims 2, 3 and 5-10 be withdrawn and that this be allowed.

Claim 11 calls for, "invalidation logic for processing said incoming signal to invalidate said tones in response to said tone pre-detection". For at least the reasons similar to the reasons discussed above in reference to Claim 1, namely, that Arnaud does not invalidate a tone in response to said tone pre-detection nor does Arnaud invalidate "said tones" as called for in Claim 11, Applicant submits that Claim 11 is not anticipated by Arnaud under 35 U.S.C. §102(e). Claims 12-17 are dependent on Claim 11. As such, Claims 12-17 are believed allowable based

Appln No. 09/933,035

Amdt date May 9, 2005

Reply to Office action of February 8, 2005

upon Claim 11 and for the additional limitations contained therein, which together further patentably distinguish them over the cited references. Therefore, Applicant requests that the rejection of 11-17 be withdrawn and that they be allowed.

Claim 19, like Claim 11 before, calls for "invalidation logic for processing said signal to invalidate said tones in response to said tone pre-detection". Again, for at least the reasons similar to the reasons discussed above in reference to Claim 1, namely, that Arnaud does not invalidate a tone in response to said tone pre-detection nor does Arnaud invalidate the "said tones" as called for in Claim 19, Applicant submits that Claim 19 is not anticipated by Arnaud under 35 U.S.C. §102(e). Claims 20-25 are dependent on Claim 19. As such, Claims 20-25 are believed allowable based upon Claim 19 and for the additional limitations contained therein, which together further patentably distinguish them over the cited references. Therefore, Applicant requests that the rejection of Claims 19-25 be withdrawn and that they be allowed.

Claim 27 calls for "means for invalidating said tones in response to said tone pre-detection". Yet again, for the reasons similar to the reasons discussed above in reference to Claim 1, namely that Arnaud does not invalidate a tone in response to said tone pre-detection nor does Arnaud invalidate the "said tones" as called for in Claim 27, Applicant submits that Claim 27 is not anticipated by Arnaud under 35 U.S.C. §102(e). Claims 28-32 and 36 are dependent on Claim 27. As such, Claims 28-32 and 36 are believed allowable based upon Claim 27 and for the additional limitations contained therein,

Appln No. 09/933,035

Amdt date May 9, 2005

Reply to Office action of February 8, 2005

which together further patentably distinguish them over the cited references. Therefore, Applicant requests that the rejection of Claims 28-32 and 36 be withdrawn and that they be allowed.

IV. Allowable Claims 4, 18, 26 and 33-35


Applicant requests that the allowability of Claims 4, 18, 26 and 33-35 be maintained. However, they have not been rewritten in independent form as they depend from Claims 1, 11, 19 and 27, which Applicant believes are allowable as well. Therefore, Applicant requests that Claims 4, 18, 26 and 33-35 be allowed.

V. Concluding Remarks

In view of the foregoing amendments and remarks, Applicant requests an early issuance of a patent with Claims 1-36. If there are any remaining issues that can be addressed over the phone, the Examiner is invited to contact Applicant's attorney at the number listed below.

Respectfully submitted,

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CTD/ctd

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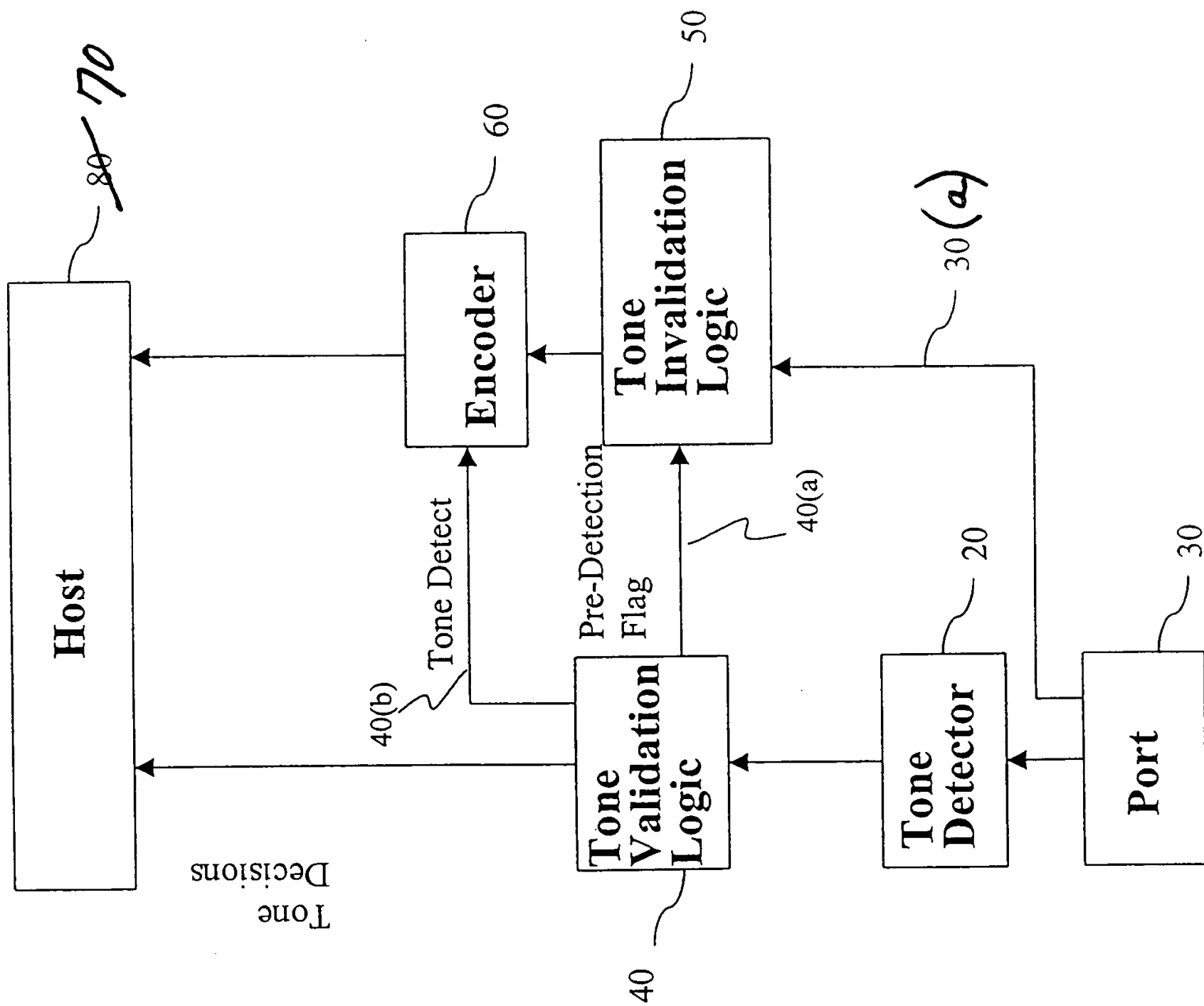


FIG. 1